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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,078	12/11/2003	Kenneth S. Murphy	MP333	7966

7590 12/15/2005

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EXAMINER

JENKINS, DANIEL J

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 12/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/734,078	MURPHY, KENNETH S.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Daniel J. Jenkins	1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2005.
- 2a) ☒ This action is **FINAL**.      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 11-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

1. The Examiner has carefully considered Applicant's Response of 9/19/05. The Examiner does not find Applicant's argument persuasive. In particular, Applicant argues that:

a. The '720 patent is lacking a teaching of thermal coating.

The '720 patent clearly discloses that the aluminide layer receives a thermal layer (see last line of Abstract). The language to improved resistance is relative and is met by the disclosure.

b. The '720 patent lacks a teaching of Hf.

The secondary reference is looked to for the substrate elements, wherein Hf is disclosed.

c. The '080 has other properties not in the pending disclosure.

These additional observed properties disclosed in the prior art are not relevant to the patentability of the pending claims.

d. The cited patents do not disclose an outwardly grown diffusion aluminide bondcoat.

The '720 patent discloses wherein the bondcoat is formed by a chemical vapor deposition (CVD), formed in the same manner as Applicant's disclosure (see incorporation of 5,261,963 and 5,264,245, both directed at CVD methods).

e. The EP is deficient for reasons above.

The Examiner relies upon the EP reference merely for the teaching to the minimization of S.

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2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murphy in view of Duhl et al. and EP 0676489A (EP'489).

Murphy discloses the invention substantially as claimed. Murphy discloses an article comprising a substrate, an intermediate layer and an outer coating (last line of Abstract).

Murphy further discloses wherein the substrate is a superalloy composition.

Murphy further discloses wherein the intermediate layer is a single phase platinum modified diffusion bonded aluminide layer formed by chemical vapor depositon.

Murphy further discloses wherein the outer coating is a ceramic coating.

However, Murphy does not disclose the compositional ranges of the superalloy composition, but allows one of ordinary skill to look to known superalloy compositions used in high temperature applications.

Duhl et al. discloses a high temperature superalloy composition comprising:

3-12% Cr;

3-10% W;

4-7% Al;

6-12% Ta;

0-0.8% Hf; and

0-5% RE.

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The Examiner notes that other elements in the claimed invention have amounts ranging down to zero.

The substantial overlap of the claimed elements with Duhl et al. establishes a prima facie case of obviousness.

EP'489 teaches that sulfur is a known impurity to be held to a minimum, such minimums held to levels of 2 ppm.

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Jenkins whose telephone number is 571-272-1242. The examiner can normally be reached on M-TH6:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1242. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Daniel J. Jenkins  
Primary Examiner  
Art Unit 1742

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